

CLAIM AMENDMENTS

Claims 1-36 (canceled)

37. (currently amended) ~~The labor contraction sensing device of claim 35~~ A labor contraction sensing device comprising:
- a fiber optic strain sensor having an attachment surface adaptable for conforming said sensor to the contour of the abdomen of a pregnant female, wherein said attachment surface has a generally elliptical shape; and
- a signal transmitter in communication with said fiber optic strain sensor;
- said fiber optic strain sensor being operable for generating an output signal in response to a labor contraction of the pregnant female and communicating the output signal to said signal transmitter;
- said signal transmitter being operable for receiving the output signal and communicating the output signal to monitor the labor contraction.
38. (currently amended) ~~The labor contraction sensing device of claim 35~~ A labor contraction sensing device comprising:
- a fiber optic strain sensor having an attachment surface adaptable for conforming said sensor to the contour of the abdomen of a pregnant female, wherein said attachment surface comprises a plurality of surface portions having a plurality of shapes for conforming to varying contours of the abdomen; and
- a signal transmitter in communication with said fiber optic strain sensor;
- said fiber optic strain sensor being operable for generating an output signal in response to a labor contraction of the pregnant female and communicating the output signal to said signal transmitter; and
- said signal transmitter being operable for receiving the output signal and communicating the output signal to monitor the labor contraction.

39. (currently amended) ~~The labor contraction sensing device of claim 35~~ A labor contraction sensing device comprising:

a fiber optic strain sensor having an attachment surface adaptable for conforming said sensor to the contour of the abdomen of a pregnant female, wherein said sensor has a generally elliptical shape; and

a signal transmitter in communication with said fiber optic strain sensor;

said fiber optic strain sensor being operable for generating an output signal in response to a labor contraction of the pregnant female and communicating the output signal to said signal transmitter; and

said signal transmitter being operable for receiving the output signal and communicating the output signal to monitor the labor contraction.

40-43 (canceled)

44. (currently amended) ~~The labor contraction sensing device of claim 35~~ A labor contraction sensing device comprising:

a fiber optic strain sensor having an attachment surface adaptable for conforming said sensor to the contour of the abdomen of a pregnant female; and

a signal transmitter in communication with said fiber optic strain sensor, wherein said sensor comprises a plurality of fiber optic cables;

said fiber optic strain sensor being operable for generating an output signal in response to a labor contraction of the pregnant female and communicating the output signal to said signal transmitter;

said signal transmitter being operable for receiving the output signal and communicating the output signal to monitor the labor contraction.

45. (canceled)

46. (previously presented) A labor contraction sensing device comprising:

a fiber optic strain sensor comprising a fiber optic cable disposed within a sensor cover;

said sensor cover having a surface conformable with the contour of the abdomen of a pregnant female;

an adhesive pad having a lower surface, an upper surface, and a compartment between said lower and upper surfaces;

said adhesive pad being adaptable for removably securing said sensor to the abdomen of the pregnant female; and

an electronics box disposed within said compartment, said electronics box comprising

- a light source in communication with said cable,
- a light detector in communication with said cable,
- an optical signal processor in communication with said light detector,
- a signal transmitter in communication with said processor, and
- a power source connected to said light source, said light detector, said processor, and said transmitter;

wherein, in response to a labor contraction of the pregnant female, said sensor and said electronics box cooperate to generate and transmit an output signal representative of the labor contraction.

47-48 (canceled)

49. (currently amended) ~~The labor contraction sensing device of claim 48~~ A labor contraction sensing

device comprising:

an adhesive pad having a first surface and a second surface;

said first surface of said adhesive pad being removably attachable to and conformable to the contour of the abdomen of a pregnant female;

a fiber optic strain sensor attached to said second surface of said adhesive pad;

said fiber optic strain sensor comprising a fiber optic cable disposed within a sensor cover;

a light source in communication with said cable;

a light detector in communication with said cable;

an optical signal processor in communication with said light detector;
a signal transmitter in communication with said processor; and
a power source connected to said light source, said light detector, said processor, and said
transmitter;
wherein said light source, said light detector, said processor, said transmitter, and said power
source are housed in an electronics box;
wherein said electronics box is disposed within a pouch adjacent to said sensor; and
wherein, in response to a labor contraction of the pregnant female, said sensor, said light source,
said light detector, said processor, and said transmitter cooperate to generate and transmit
an output signal representative of the labor contraction.

50 (canceled)